

## The health and relationship dynamics of late-life couples: a systematic review of the literature

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### ABSTRACT

Late-life husband and wife relationships are increasingly recognised as an important factor in promoting wellbeing, particularly in terms of the health, social, emotional, financial and practical needs of older people. Knowledge of marital dynamics and how they affect both members of a couple remains scarce. This systematic review aimed to identify and appraise research that has focused explicitly on the dynamics of the relationship, as evinced by data from *both* spouses. Implementing rigorous identification strategies, 45 articles were identified and reviewed. These studies were grouped into three broad thematic areas: marital relations and satisfaction; concordance in emotional state or physical health; and the interplay between marital quality and wellbeing. The issues found to affect marital relations and satisfaction in late life included equality of roles, having adequate communication, and transitions to living apart. There is strong evidence for couple concordance in depression, that marital relationships affect ill-health, longevity and recovery from illness, and reciprocally that ill-health impacts on the marriage itself. The research also suggests important gender differences in the impact of marital dynamics on health. It has led to the conclusion that there is a need for more diverse studies of late-life marriages, particularly ones that examine the dynamics of non-traditional elderly couples and that extend beyond a predominant focus on the Caucasian population of the United States.

**KEY WORDS** – couples, elderly, marriage, mental health, physical health, systematic review.

### Introduction

Marriage creates a world of shared meaning and experience from which it is difficult to disengage – a satisfactory marriage in our society provides a number of benefits, such as material support and care-giving and stable companionship. The permanent presence of a spouse, which might evoke negative as much as positive affect, is nonetheless vital in creating a secure and predictable environment (Jerome 1993: 246).

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The complex nature of late-life husband and wife relationships is increasingly recognised as an important factor contributing to healthy ageing. The long-term marriage relationship is highly relevant in terms of the health and the social, emotional, financial and practical needs of older people, yet the dynamics of this relationship remain poorly understood (Ray 2000). The socio-environmental context of ageing, such as the role of neighbourhoods or physical environment, has been explored as an important determinant of health among older people (*e.g.* Phillipson *et al.* 1999). An equally important social context is that of marriage, which provides spouses with their primary source of social support and economic stability, and which in turn have been shown to be associated with physical health (Stimpson and Peek 2005). Marital relationships have the potential to influence health, and the onset of ill-health in one spouse can in turn influence the relationship. There is strong evidence that the ways in which elderly couples mutually relate can have a direct influence on health and wellbeing, irrespective of co-existing factors such as education, income and age (Tower and Kasl 1996*a*).

Research on late-life marriage has to date tended to examine the influence of marital status *per se* as opposed to the nature of the marital relationship over time (*e.g.* Kiecolt-Glaser and Newton 2001; Manzoli *et al.* 2007), or to examine the burden of being a care-giving spouse (*e.g.* Seltzer and Li 2000), especially for a partner with cognitive impairment (*e.g.* Eloniemi-Sulkava *et al.* 2002; Adams 2006). Research on changes in health, as they impact on the *couple*, has typically focused on one spouse predominantly, not the dynamics within the relationship, and the impact on *both* spouses. Empirical studies of the dynamic interchanges involved in marital relationships require a dyadic approach, with data from both members of a couple (Goodman and Shippey 2002). There is also the need to account for the interdependence of spouses' experiences in terms of data collection and analysis (Barnett *et al.* 1993), as by examining both individual-level and couple-level variables.

This systematic review is of published research into the dynamics of the relationship as perceived by *both* spouses, and therefore extends the established gerontological focus on marriage as predominantly a care-giving relationship. Although we accept that instrumental care is a very important aspect of late-life couple relationships, the topic has been well documented in several reviews (*e.g.* Walker, Pratt and Eddy 1995; Dunkin and Anderson-Hanley 1998; Torti *et al.* 2004). To date, however, there has not been a synthesis of the literature on the broader dynamics of late-life couple relationships, or the factors which impact on spouses' health or on their relationships, using data from *both* members of the couple. This systematic review has identified and evaluated studies from many disciplines,

including sociology, nursing, psychology, gerontology, public health and social work, and thereby makes a contribution to a better understanding of the dynamics of late-life couple relationships and their implications for health.

## Methods

Searches were conducted using the online databases *PubMed*, *Sociological Abstracts*, *PsychInfo*, and *CINAHL*, using combinations of the key words: 'spouse', 'marriage', 'husbands', 'wives', 'couples', 'aged', 'older people', 'elderly', 'satisfaction', 'marital satisfaction', 'interpersonal relations', 'marital relations', 'marriage/psychology', 'social support', 'health', 'depression', 'institutionalisation', 'nursing homes' and 'transitions'. To be included in the review, articles had to be peer-reviewed, available in English, to have studied populations aged 65 or more years, and have been published between 1990 and April 2007. Reference lists of key papers were also scanned for relevant studies that were missed by the electronic searches. An article was included if:

- the focus was *primarily or extensively* on exploring the complexity of older couple relationships in their own right (*e.g.* in terms of relationship dynamics and/or changes/transitions and/or health/health behaviours);
- the study examined data from *both* members of the marital dyad;
- the focus was on couples aged 65 or more years (demonstrated by the mean age of participants).

An article was excluded if:

- elderly spousal relations/behaviours were mentioned incidentally to a wider focus (*e.g.* on younger, middle-aged or all-age couples or wider family);
- the focus was primarily on one spouse, especially where this related to studies of care-giver burden, the experiences of wife/husband care-givers, or bereavement;
- it was an intervention study.

As can be seen in Figure 1, the initial searches in the online databases identified 795 citations. Most of the articles excluded were those which did not focus extensively on *elderly couples* or focused on one spouse predominantly (*i.e.* with a focus on care-giving burden). A total of 45 articles met the review criteria and were subsequently grouped into three broad thematic areas. These thematic areas derived from the main aims and terminology used in the papers. There were 12 papers on marital relations

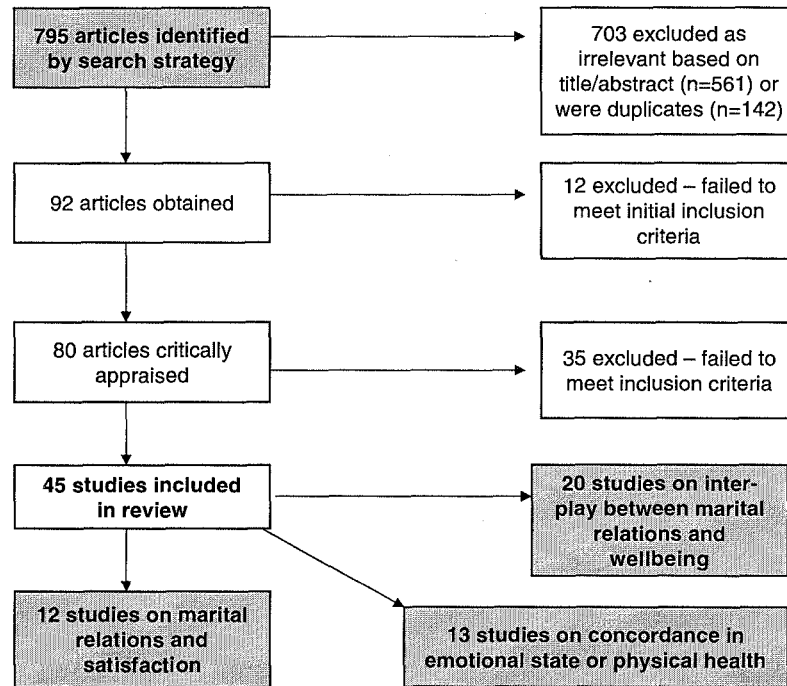


Figure 1. The identification of eligible studies for systematic review

and satisfaction, 13 on concordance in emotional state or physical health, and 20 on the interplay between marital quality and wellbeing.

### Marital satisfaction and marital relations

As people age, they purposefully narrow their social environments and place increasing importance on significant relationships (Carstensen 1992; Acitelli and Antonucci 1994). Although divorce rates are low and reports of satisfaction are high among couples in later life, challenges within the relationship are apparent. It is important to understand these challenges because marital problems have been linked to decreased physical activity and increased depression (Henry, Miller and Giarrusso 2005). The characteristics of the small number of studies focusing on relationship dynamics are summarised in Table 1. These studies have highlighted the factors contributing to marital satisfaction, including notions of 'successful' marriages (Lauer, Lauer and Kerr 1990; Henry, Miller and Giarrusso 2005), the division of roles and marital equality (Keith, Schafer and Wacker 1992; Matras and Caiden 1994; Kulik 2002), and the provision of social

support (Anderson, Earl and Longino 1997), all of which might change over time as couples negotiate shifting roles and expectations in line with transitions or illness.

A United States survey of 100 couples resident in retirement communities in eight states found that the most important attribute contributing to marital happiness, reported by both husbands and wives, was being married to someone they liked and enjoyed being with (Lauer, Lauer and Kerr 1990). In addition, a sense of commitment to their partner and the marriage, a shared sense of humour and agreement on a wide variety of issues were also seen as important. Several studies, however, have highlighted areas that might prove a catalyst for disagreements or dissatisfaction in late-life marriages (*e.g.* Keith, Schafer and Wacker 1992; Kulik 2002). Henry, Miller and Giarrusso (2005) found that issues relating to leisure activities, intimacy or communication were the main difficulties reported by elderly couples surveyed by the US *Longitudinal Study of Generations* (LSOG). When looked at in terms of gender, there was no difference in the *number* of reported challenges, but some in the *types* of challenges. Wives were more likely to complain about husbands' personal habits and health matters in general, whereas husbands were more likely to have concerns about financial issues. In addition, the researchers found that in relation to measures of marital quality, those in happier marriages reported fewer challenges, whereas there were no differences by duration of the marriage.

Marital roles and equity also appear to play a part, albeit a complex one, in relation to satisfaction in elderly marriages. Keith, Schafer and Wacker (1992) found very little difference between husbands' and wives' perceptions when they asked older couples to report levels of equity or inequity in roles such as housekeeping, food preparation, the provider (or earner) role and companionship. Although rare, reports of disagreements or dissatisfaction usually related to the provider and companion roles, rather than housekeeping or food preparation. While they caution that their findings were based on an exploratory study, Keith and colleagues suggested that over time the benchmarks for calculating 'fairness' in a marriage might reduce or be buffered by a sense of commitment to the spouse. Furthermore, they suggested that any perceived inequity might be downplayed or accepted and seen as a natural consequence of long-term marriage. On the other hand, a study of Israeli retiree couples found negative correlations between equality in family roles (such as chores, financial and social roles) and marital burn out (feeling trapped and depressed) among husbands (Kulik 2002). Overall, wives reported lower levels of satisfaction with the marriage and higher levels of burn-out than husbands. The author suggested that this could either be because Israeli wives

TABLE I. *Studies of marital relations and satisfaction*

Study	Participants	Data collection <sup>1</sup>	Sampling/setting	Main findings
1. Ahn and Kim 2007	10 couples, husbands mean age 77, wives 72	Ethnographic interviews and observations/joint and separate	Purposive-social welfare institution/home, Korea	Presence of a support system important to enable couples to mutually care for each other
2. Anderson <i>et al.</i> 1997	298 couples (dual-earners, currently or some time in marriage) husbands mean age 66, wives 64	Separate interviews/data from <i>Aging Couples Study</i>	Population-based/home, North Carolina, USA	Gender differences in exchange of social support within marriage – wives provide their husbands with more conjugal support
3. Gladstone 1995	31 couples (one living in long-term care), mean age 78 years	Separate (n = 25) and joint (n = 6) interviews	Purposive-Aged Care Facilities/Home and Care Facility, Canada	Relocation did not have direct impact on way respondents perceived their marriages/ 'Continuity Theory' useful in understanding these perceptions
4. Henry <i>et al.</i> 2005	105 couples, mean age 69	Qualitative analysis of open-ended questions/separate self-complete questionnaires/ data from USC Longitudinal Study of Generations (LSOG)	Health Maintenance Organisation subscribers/home, Southern California, USA	Marital disagreement most often about leisure activities, intimacy/communication, or financial matters – gender differences
5. Kaplan <i>et al.</i> 1995	6 community-dwelling wives with husbands in long-term care, wives 51–77, husbands 53–83	In-depth interviews with wives	Purposive-Nursing Homes/Home, Chicago, USA	Typology of 'couplehood' emerged (extent to which perceive self as married) – when husband in nursing home, including 'unmarried marrieds'; 'husbandless wives', 'till death do us part' – implications for practitioners
6. Keith <i>et al.</i> 1992	82 couples, mean age husbands 71 years, wives 69	Separate structured interview	Population-based/home, Iowa, USA	Few gender differences in perception of equity/inequity in marital roles. Dissatisfaction and disagreement independent of role (in)equity – link to discontent may be less applicable to older relationships

7. Kulik 2002	116 couples, age range 58–85 years	Separate structured questionnaires	Purposive/community pensioners' clubs/clubs and home, Israel	Equality in social aspects of marriage a good predictor of marital satisfaction and negatively correlated with burn-out/wives reported higher levels of burn-out and lower level marital satisfaction
8. Lauer <i>et al.</i> 1990	100 couples, aged 65+ years	Separate questionnaires	Purposive/retirement communities/8 different States, USA	Husbands and wives nominated similar reasons for marital stability and satisfaction – being married to someone they liked and enjoyed being with viewed as most important attribute
9. Lundh <i>et al.</i> 2000	14 couples (11 wives, 3 husbands), mean age 79 years	In depth interviews with community-dwelling spouse	Purposive-local social services department/home, Sweden	Relocating spouse to care home is emotionally complex and largely unstructured in terms of preparation for the move/notion of continuity important
10. Matras and Caiden 1994	1,140 couples, aged 60+ years	Separate questionnaires/data from <i>Israel Survey of Persons</i> aged 60 and Over in Households, 1985	Population-based/home, Israel	Husbands and wives characteristics ( <i>e.g.</i> self-assessed health) and roles affect prevalence of major commitment roles (employment, continued parenting, full housekeeping, volunteering)
11. Racher 2002	19 couples, age range 72–96 years	Joint in-depth interviews	Purposive-support services/home, Manitoba, Canada	A mutually supportive relationship, characterised by good communication and adaptability, enabled frail couples to remain in community
12. Sandberg <i>et al.</i> 2001	12 spouse carers	In depth interviews with community-dwelling spouse	Purposive-local social services department/Home, Sweden	Difficulty for non-institutionalised spouse is attempt to maintain spousal relationship whilst simultaneously trying to establish good relations with care home staff/ importance of 'role redefinition'

*Notes:* 1. All studies were cross-sectional (conducted at a single point in time), unless otherwise stated. 'Home' refers to people living in the community (not in institutions).

experience the significant burden of maintaining the home, and/or women are more likely actually to report burn-out, *i.e.* it might be deemed socially acceptable for women, but not men, to speak up about emotional distress.

It is well documented that older people prefer to remain living in the community as they age, and that spousal relationships play a major role in the capacity for such independent living, particularly in the provision of informal support. Two studies have provided insight into the mechanisms involved in such relationships by exploring *how* older couples assist each other to remain independent. Among a sample of 19 frail rural elderly couples in the United States, a relationship characterised by synergism and adaptability saw couples develop a supportive relationship involving role reciprocity and interdependence (*e.g.* one member of the couple preparing the meals, one doing the household chores, and both sharing some tasks such as cleaning dishes and gardening) (Racher 2002). Where friction or the breakdown of relationships was apparent, this was often due to imbalance in the roles or contributions to the relationship, or where cognitive impairment meant that they could no longer communicate as effectively, causing strain and frustration. An ethnographic study of 10 Korean couples found that mutual caring was seen as fraught with difficulties, involving the desire to care for each other in the presence of diminished capacities. This was coupled with a perceived lack of family support, and hence the need for outside or formal support, but the older couples were restrained by the cultural norm of not wishing to disclose the need for such support (Ahn and Kim 2007).

Relatively few studies have described the impacts on a relationship when one spouse moves to a nursing home (Gladstone 1995; Kaplan *et al.* 1995; Lundh, Sandberg and Nolan 2000; Sandberg, Lundh and Nolan 2001). With one exception (Gladstone 1995), these studies did not strictly meet the eligibility criteria for the systematic review as they involved data collection from only one spouse, but they have been included because they discussed the impact of the move *on the relationship*, rather than on caregiving roles exclusively. Two studies in North America (Gladstone 1995; Kaplan *et al.* 1995) and two in Sweden (Lundh, Sandberg and Nolan 2000; Sandberg, Lundh and Nolan 2001) explored the experience of marriage when one spouse moved into long-term care, either regarding the transition itself or the impact on the relationship once the move had occurred. Such research has provided an insight into how the non-institutionalised spouse perceives their continued marriage or 'couplehood'.

Gladstone (1995) found that, overall, relocation did not appear to have a direct impact on the way respondents perceived their marriages, in that having a spouse living in a nursing home did not necessarily affect the marriage, especially if they felt able to retain an active role in the marriage



or, on a personal level, the image of themselves as being 'married' was not disrupted. The researchers argued that 'continuity theory' helps explain such reactions; this theory posits that in day-to-day life and when faced with a challenge, older people seek practical and symbolic ways of preserving a sense of predictability and of retaining some sense of normality in the face of change (Atchley 1989). So, regardless of the physical change of living apart, preservation of the marriage relationship (as by maintaining involvement in various shared activities) can help sustain the relationship and the wellbeing of both spouses. They found that deteriorating health, rather than re-location, most negatively affected relationships. Kaplan *et al.* (1995) also found that, as a way of coping, wives re-frame the notion of 'couplehood' when their husband has been institutionalised into one of three categories: 'no', 'low' or 'high' couplehood, dependent on the effect of institutionalisation on the relationship, and their need to re-assess their new role.

The Swedish research looked more closely at the spouse's emotional reactions to the impact of placement in a nursing home and his or her subsequent efforts to maintain the relationship (Lundh, Sandberg and Nolan 2000; Sandberg, Lundh and Nolan 2001). They too found a theme of 'continuity'. Specifically, whilst relocating a spouse to a care home was emotionally complex (with both grief and relief), and preparation for the move was usually precipitate and unstructured, many couples saw it as important to continue the relationship whilst at the same time creating new roles and relationships with staff at the care home.

### *Summary*

According to the studies examined, there is a clear potential for dissatisfaction and distress in late-life marriages, and these states need to be understood as factors contributing to poor functioning and possibly ill health. The importance of having a supportive spouse has been emphasised, as also has the importance of recognising that husbands and wives may differ in their emotional and practical needs. Particularly in the context of relocation, viewing older people's marital relationship as continuous is an equally important challenge to late-life marriage, and to the wellbeing of both spouses. The reviewed studies predominantly took a qualitative approach, enabling the subjective experiences of older couples to be heard. It should be pointed out that the scope and coverage of these studies was fairly limited, not least because the majority were carried out in North America with white, heterosexual couples (Lauer, Lauer and Kerr 1990; Keith, Schafer and Wacker 1992; Kaplan *et al.* 1995; Gladstone 1995; Anderson, Earle and Longino 1997; Racher 2002; Henry, Miller

and Giarrusso 2005). This systematic review did not identify any studies of the dynamics of non-traditional, late-life, couple relationships (such as non-heterosexual, *de-facto* or re-marriage relationships). Whilst these sub-sections of the older-people population have traditionally been small, it is envisaged that such minority groups of elderly couples will become more prevalent in the coming decades (Cooney and Dunne 2001; Heaphy, Yip and Thompson 2004).

### **Concordance in emotional state or physical health**

The second theme in the published research examines the concordance between the spouse's emotional states or physical health. Concordance here relates to the notion that married couples often share health and wellbeing characteristics, such as degree of life satisfaction or depressive symptoms. As Stimpson and Peek (2005: 2) distilled the idea, 'sharing a living environment, resources, life events and habits, individuals ultimately share health risks that may translate into having a disease they might otherwise not have in an alternative social context'. A recent systematic review of studies of couples of all ages found overwhelming evidence for couple concordance in terms of mental and physical health (Meyler, Stimpson and Peek 2007). It is argued that concordance may be especially applicable among older couples in consequence of the many years that they have lived together. The current systematic review found 13 studies that focused specifically on health or wellbeing concordance among elderly couples, as summarised in Table 2.

The majority of these studies found concordance between spouses in terms of *depressive symptoms* (Tower and Kasl 1995, 1996a; Bookwala and Schulz 1996; Kivela *et al.* 1998; Dufouil and Alperovitch 2000; Townsend, Miller and Guo 2001; Goodman and Shippey 2002; Stimpson, Peek and Markides 2006; Peek *et al.* 2006). Most were cross-sectional studies of community-dwelling couples aged 65 or more years, and most found that depressive symptoms in one spouse influenced those of the partner, even after controlling for socio-demographic and health status variables. Some of these studies have also shown differences between husbands and wives in the effect of spousal characteristics on the other spouse's affect (Tower and Kasl 1995; Stimpson, Peek and Markides 2006; Peek *et al.* 2006).

Peek and colleagues (2006) found evidence that, overall, there was an association between husbands' and wives' wellbeing, but this did not appear equal for men and women across different domains of wellbeing. Focusing on three aspects of wellbeing (self-rated health, depressive symptoms and life-satisfaction) among Mexican-American older people,

they found that life satisfaction and depressive symptoms in husbands had significant effects on wives' wellbeing, but not *vice versa*. A Finnish study found that wives' characteristics affected husbands' depression, but not the reverse, under specific conditions where the wife's father had died when she was under 20 years of age and she currently perceived family relations as poor (Kivela *et al.* 1998). Another study found that the convergence of depression might be higher among couples who are emotionally close (Tower and Kasl 1996a), as measured by nominating your spouse as confidant or a source of emotional support. For men in particular, being close to their spouse was seen to increase vulnerability to depressive concordance (Tower and Kasl 1995). In terms of an explanation for the concordance of depression among elderly spouses, seven studies posited the theory of 'emotional or affective contagion'. Such contagion may arise when people interact in a close relationship, such as marriage, are interdependent and, to a certain extent, control each other's outcomes, thus leading at times to a convergence in emotional patterns such as negative mood (Tower and Kasl 1995, 1996a; Bookwala and Schulz 1996; Kivela *et al.* 1998; Dufouil and Alperovitch 2000; Goodman and Shippy 2002; Stimpson, Peek and Markides 2006).

Fewer studies found couple concordance in *physical health and health behaviours*, particularly in terms of heart-disease risk factors, including blood pressure, as was shown among 553 Mexican-American couples by Peek and Markides (2003). Follow-up studies in the same Mexican-American population have demonstrated that other chronic conditions in one spouse, such as hypertension, cancer and arthritis, significantly increase the likelihood of the other spouse developing the same conditions (Stimpson and Peek 2005). This led the authors to suggest that couples share similar health-risk behaviours. Indeed, 'body mass index' was found to be similar and risk of smoking or drinking alcohol was related to spousal smoking and consumption of alcohol (Stimpson *et al.* 2006). Interestingly, a study conducted with 40 Caucasian couples in the United States found low correlations between spouses in terms of health promoting behaviours such as health management, injury prevention, stress reduction, rest and relaxation, exercise and nutrition (Padula and Sullivan 2006). Disparities in ethnic background of the participants, sample size and outcomes measured may have contributed to these equivocal findings.

### Summary

The published research suggests that, along with individual risk factors, the marital partner is an important influence on health among elderly couples. The reviewed studies present clear evidence for concordance of

TABLE 2. *Studies of concordance in emotional state or physical health*

Study	Participants	Data collection <sup>1</sup>	Sampling/setting	Concordance theory <sup>2</sup>
1. Bookwala and Schulz 1996	1,040 couples, husbands mean age 73, wives 71	Separate structured interview/ drawn from <i>Cardiovascular Health Study</i> (CHS)	Population-based/ home, USA	Affective contagion/assortive mating/common environmental influences (affective and non-affective wellbeing)
2. Dufouil and Alperovitch 2000	318 couples, husbands mean age 66, wives 64	Separate interviews and physical examinations/data from <i>Epidemiology of Vascular Aging</i> (EVA)	Population-based/ study centre and home, France	Assortive mating/shared life events/ affective contagion (depressive symptoms)
3. Goodman and Shippy 2002	123 couples, one with recent vision loss (mean age 74 years) and their non-impaired spouse (mean age 72 years)	Separate telephone interview	Clinical population-applicants for vision rehabilitation services/home, USA	Contagion/stress process model (depressive symptoms)
4. Kivela <i>et al.</i> 1998	176 couples, husbands mean age 75, wives 71	Separate postal questionnaires, face-to-face interviews, clinical examinations	Population-based/ home, Finland	Assortive mating/shared living environment/affective contagion (depression)
5. Padula and Sullivan 2006	40 couples, mean age 68 average	Separate self-complete questionnaires	Purposive-community centres/home, Rhode Island, USA	None identified (perceived barriers/ self-efficacy for health promoting activities, marital quality)
6. Peek and Markides 2003	553 Mexican-American couples, husbands mean age 74, wives 71	Interviews and physical examinations/data from <i>Hispanic Established Population for the Epidemiological Study of the Elderly</i> (H-EPESE)	Population-based/ home, Southwestern States, USA	Similar health behaviours, health risk/shared living environment (blood pressure)

7. Peek <i>et al.</i> 2006	553 Mexican-American couples, husbands mean age 74, wives 71	Interviews and physical examinations/data from H-EPESE	Population-based/home, Southwestern States, USA	Gender roles/familism – wives affected by husbands wellbeing (wellbeing)
8. Stimpson and Peek 2005	553 Mexican-American couples, husbands mean age 74, wives 71	Interviews and physical examinations/data from H-EPESE	Population-based/home, Southwestern States, USA	Shared living environment/health risks (chronic conditions)
9. Stimpson, Peek and Markides 2006	553 Mexican-American couples, husbands mean age 74, wives 71	Interviews and physical examinations/data from H-EPESE	Population-based/home, Southwestern States, USA	Affective contagion (depression/mental health)
10. Stimpson <i>et al.</i> 2006	553 Mexican-American couples, husbands mean age 74, wives 71	Interviews and physical examinations/data from H-EPESE	Population-based/home, Southwestern States, USA	Shared living environment/health risks (BMI, smoking, drinking)
11. Tower and Kasl 1995	317 couples, husbands mean age 75, wives 73	Separate interviews/data from <i>Yale Health and Aging Project</i> (YHAP)	Population-based/home, Connecticut, USA	Affective contagion (depressive symptoms)
12. Tower and Kasl 1996a	317 couples, husbands mean age 75, wives 73	Longitudinal/Separate interviews/data from YHAP	Population-based/home, Connecticut, USA	Affective contagion (depressive symptoms)
13. Townsend <i>et al.</i> 2001	5,423 couples (White, Black and Mexican American), mean age HRS 55 years, AHEAD 74 years	Separate interviews/data from <i>Health and Retirement Study</i> (HRS) and <i>Study of Asset and Health Dynamics Among the Oldest Old</i> (AHEAD)	Population-based/home, USA	Social contextual model (depressive symptoms)

Notes: 1. All studies were cross-sectional (conducted at a single point in time), unless otherwise stated. 2. Concordance theories are illustrated, where these were identified by the study authors. The domain of interest in relation to concordance is included in brackets.

depressive symptoms within elderly couples, but the quality of the relationship might moderate this 'affective contagion'. Further research is needed to determine whether elderly couples share other health issues or risk factors, better to determine the extent to which the context of marriage is related to other chronic conditions in older people. The issue of a differential impact of spousal depression or characteristics on husbands' and wives' wellbeing also warrants further exploration.

### **The interplay between marital quality and wellbeing**

Couples in late-life marriages tend to rely on each other to meet the daily challenges they experience that are associated with a gradual decline in physical abilities and increased susceptibility to illness. It is therefore not surprising that the largest number of studies in the systematic review were based on the notion of the dynamic interplay between marital relationships and ill-health, and the way one impacts on the other. The literature suggests that members of a couple mutually experience stressful life events such as illness, and that marital relations might mediate the association between stressors and wellbeing. The 20 studies in this area were grouped under two distinct themes that will be discussed in turn (Table 3).

#### *Marital relations and coping with illness*

Studies of this topic can be further differentiated into those which focused on how the marital relationship is influenced by illness, *i.e.* looking only at post-morbid relationships, and those which examined how pre-existing marital relationships affect the experience of spousal illness. The first block of Table 3 lists the (mainly qualitative) studies that examined how the marital relationship was influenced by the onset of illness in one or both spouses, and that have demonstrated that this is not always a wholly negative experience (Birgersson and Edberg 2004; Roberto, Gold and Yorgason 2004; Hellstrom, Nolan and Lundh 2005; Layman, Dijkers and Ashman 2005; Robinson, Clare and Evans 2005; Harden, Northouse and Mood 2006). In general, this research has focused on the effects on the couple of specific chronic conditions such as Parkinson's disease (Birgersson and Edberg 2004) and osteoporosis (Roberto, Gold and Yorgason 2004), and suggests that couples demonstrate considerable resilience which can counteract the inherent negative impacts of illness. For example, a study focusing on the impact of dementia on the couple has suggested that whilst diagnosis can have major detrimental effects on the relationship of elderly couples, those who understood and accepted the diagnosis and developed a joint process for dealing with everyday issues found it easier to adjust (Robinson, Clare and Evans 2005).

TABLE 3. *Studies of the interplay between marital quality and wellbeing*

Study	Participants	Data collection <sup>1</sup>	Sampling/setting	Finding or mechanism/theory
<b>A. Marital relations and coping with illness</b>				
1. Birgersson and Edberg 2004	6 couples, one with Parkinson's disease, mean age 73 years	Separate in-depth interviews	Clinical sample/home, Sweden	Transition of roles and between-couple variations in terms of support needs met/none identified
2. Druley <i>et al.</i> 2003	101 couples, wife with osteoarthritis, mean age husbands 71, wives 69	Longitudinal/separate interviews and self-report questionnaires	Clinical sample/home, USA	Pain behaviours moderated patients and husbands depressive symptoms and anger/emotional congruence – interpersonal antecedents and consequences of negative emotion
3. Hagedoorn <i>et al.</i> 2001	995 couples, either both healthy, husband or wife suffered chronic illness, or both ill, mean age husbands 70, wives 68	Separate self-completion questionnaire/data from <i>Groningen Longitudinal Aging Study</i> (GLAS)	Population-based/home, Groningen, The Netherlands	Wives psychological wellbeing affected by own chronic illness and that of spouse/gender difference in relationship orientation (identity-relevant stress)
4. Harden <i>et al.</i> 2006	15 couples; husband with prostate cancer; 3 age cohorts – mean ages: late middle age, husbands 57, wives 52; young-old, husbands 70, wives 68; old-old, husbands 76, wives 74	Shared semi-structured in-depth interviews and separate demographic and medical history questionnaires	Stratified purposive, clinical sample/Midwest USA	All couples viewed diagnosis as joint experience which impacted on daily lives, marital and family relationships and developmental stage/none identified
5. Hellstrom <i>et al.</i> 2005	20 couples, one with dementia (mean age 77), and their spouse (mean age 76)	Longitudinal/separate in-depth interviews	Purposive/hospital assessment unit/home, Sweden	Couples mutually acknowledge dementia and recognise importance of maintaining meaningful relationship and lifestyle, <i>e.g.</i> they actively manage the memory problems and impact on daily activities and on the non-affected spouse/awareness context theory and dynamics of dementia

TABLE 3. (Cont.)

Study	Participants	Data collection <sup>1</sup>	Sampling/setting	Finding or mechanism/theory
6. Layman <i>et al.</i> 2005	7 couples, one with traumatic brain injury (TBI) (mean age 70), and their spouse (mean age 69)	Separate telephone and face-to-face semi-structured interviews	Purposive/rehabilitation database/home, New York, USA	Couples attribute effects of TBI to normal age-related changes in relationships/Lazarus and Folkman's stress-appraisal-coping framework/primary and secondary control strategies to manage loss in later life
7. Martire <i>et al.</i> 2006	137 couples, one with osteoarthritis (mean age 69) and their spouse (mean age 70 years)	Patients and spouses separately viewed videotapes of patient performing tasks and provided ratings of patients' pain	Clinical sample/laboratory, Pittsburgh, USA	Spouses who are accurate in perceptions of level of spousal pain provide more helpful emotional support and assistance and experience less stress from providing support/illness contagion
8. Roberto <i>et al.</i> 2004	34 couples, wife with osteoporosis; mean age husbands 72, wives 70	Separate interviews	Purposive/clinics and newspaper/home, Virginia, USA	Illness caused change to structure but not overall quality of relationship; discrepancies in perception of pain associated with lower marital adjustment for wives, but not husbands/none identified
9. Robinson <i>et al.</i> 2005	9 couples, one with dementia (mean age 77), and their spouse (mean age 74)	Shared in-depth interview	Purposive/clinical sample/home, North London, UK	Couples go through oscillating process as make sense and adjust to loss and difficulties associated with illness, similar to form of adjustment/dual-process model of grief
<b>B. Influence of marital relations on wellbeing</b>				
1. Acitelli and Antonucci 1994	69 couples, average age 74 years	Separate face-to-face interviews	Population-based/home, USA	Perceptions of social support more strongly related to wellbeing of wives/social support theory/gender differences in salience of social support
2. Ducharme 1997	135 couples, aged 65+ years	Longitudinal/standardised separate interviews	Purposive-health and social service users and non-users/home, Montreal, Canada	Association between conjugal support and life satisfaction for both husbands and wives/social exchange and equity theory
3. Miller <i>et al.</i> 2004	103 couples (80 White and 23 Black)	Longitudinal/interviews/data from <i>Americans' Changing Lives Survey</i> (ACL)	Population-based/home, USA	Marriage offers health-promoting effects for husbands, wives who are dissatisfied experience worse mental health/none identified



4. Quirouette and Gold 1992	120 couples, husbands mean age 68, wives 65	Separate standardized self-report questionnaires/interview	Local community agencies and newspapers/home, Canada	Marital adjustment important for psychological wellbeing of wives; wives more responsive to spouses wellbeing/gender role socialisation
5. Sandberg and Harper 2000	535 couples, husbands mean age 65, wives 62	Separate self-complete questionnaires	Population-based/home, USA	Marital distress and levels of stress and/or health associated with depression for both husbands and wives/marital distress model of depression
6. Skarupski <i>et al.</i> 2006	528 couples, husbands mean age 74, wives 72	Longitudinal/separate structured interviews/data from <i>Chicago Health and Aging Project</i> (CHAP)	Population-based/home, Chicago, USA	Gender differences in impact of spousal cognitive function on depressive symptoms; wives cognitive function associated with husbands' depressive symptoms/none identified
7. Tower and Kasl 1996b	317 couples, husbands mean age 75, wives 73	Separate interviews/data from <i>Epidemiologic Study of the Elderly</i> (EPESE)	Population-based/home, Connecticut, USA	Marital closeness predictor of depressive symptoms but different dynamics for husbands and wives; closeness associated with fewer symptoms for wives and more in husbands/gender norms/interpersonal theory of depression
8. Tower <i>et al.</i> 1997	317 couples, husbands mean age 75, wives 73	Longitudinal/separate interviews/data from EPESE	Population-based/home, Connecticut, USA	Higher levels of depressive symptoms for husbands in mutually close marriages when wife has cognitive impairment, but not vice versa/gender differences in sources of emotional support
9. Tower <i>et al.</i> 2002	305 couples, husbands mean age 75, wives 73	Longitudinal/separate interviews/data from <i>Yale Health and Aging Project</i> (YHAP), part of EPESE	Population-based/home, Connecticut, USA	Marital dynamics associated with longevity for husbands-naming wife as source of emotional support associated with higher risk of mortality/marital role theory
10. van Doorn 1998	565 couples, husbands mean age 77, wives 74	Longitudinal/separate interviews/data from <i>Australian Longitudinal Study of Ageing</i> (ALSA)	Population-based/home, Adelaide, South Australia	Link between spouse and self rated limitations or life-expectancy and mortality/attitudes, traits, optimism and pessimism
11. Whisman <i>et al.</i> 2006	416 couples, husbands mean age 72 years, wives 68	Separate face-to-face interviews/data from <i>Changing Lives of Older Couples</i> study (CLOC)	Population-based/home, Detroit, USA	Marital discord independent predictor of wellbeing, not influenced by personality traits/none identified

Notes: 1. All studies were cross-sectional (conducted at a single point in time), unless otherwise stated.

Two quantitative studies have suggested, however, that illness in one spouse can lead to distress in the other (Hagedoorn *et al.* 2001; Druley *et al.* 2003), and that this is experienced differently by husbands and wives. A quantitative study carried out in The Netherlands focused on the effect of chronic disease on 995 elderly couples, and found evidence that psychological distress was particularly elevated in wives in relation to their own chronic disease, and also to the husbands'. Conversely, husbands' psychological distress was associated only with their own health condition, not their wives' (Hagedoorn *et al.* 2001). This finding parallels that discussed above for gender-asymmetric dynamics of the impact of one spouse's depression on that of the other spouse.

A longitudinal study carried out by Druley and colleagues (2003) found that, among couples with the wife suffering from osteoarthritis, depressive symptoms and anger, there was an associated increase in the same negative emotions in husbands. Wives' pain behaviour (such as rubbing joints and limping) was also associated with the husbands' negative emotions. One study specifically focused on how marital relations affect the experience of spousal chronic illness (Martire *et al.* 2006). It found among people with osteoarthritis, that spousal ratings of patient health or pain levels had implications for the ways in which the partners interacted and provided emotional support, ultimately affecting the patient's wellbeing.

#### *The influence of marital quality on wellbeing*

The several studies that have examined the link between marital relationships and mental health outcomes among older people are listed in the second block of Table 3 (Quirouette and Gold 1992; Acitelli and Antonucci 1994; Tower and Kasl 1996*b*; Tower, Kasl and Moritz 1997; Ducharme 1997; Sandberg and Harper 2000; Miller, Townsend and Ishler 2004; Whisman *et al.* 2006; Skarupski *et al.* 2006). The majority of these cross-sectional and longitudinal studies have found evidence that positive marital relations (characterised by support and closeness) may be protective of psychological wellbeing, whereas negative marital relations (characterised by disagreement, dissatisfaction and distress) are associated with poor mental health outcomes for one or both members of the couple, irrespective of health status and other socio-demographic variables.

Importantly, several of these studies have found gender differences in the effects of marital quality on wellbeing, suggesting that there may be different dynamics for husbands and wives. Relationships characterised by closeness, whereby the spouse is seen as confidant and a source of emotional support, or where levels of satisfaction and agreement are high (*e.g.* Quirouette and Gold 1992; Acitelli and Antonucci 1994; Tower and Kasl 1996*b*; Sandberg and Harper 2000), have been found to be protective

for wives in terms of psychological wellbeing. There is evidence, however, that for husbands, emotional closeness might indeed be a risk factor for depression (Tower and Kasl 1996*b*), particularly if the wife becomes cognitively impaired (Tower, Kasl and Moritz 1997). Some authors have suggested that the mechanism underpinning these gender differences may reflect a greater focus on autonomy for men and on interpersonal relationships for women (Quirouette and Gold 1992); that is, wives may be particularly vulnerable to the harmful effects of marital disharmony or husbands' poor mental health status, unlike husbands for whom independence from wives (or self-sufficiency) may be protective. When the husband does draw on his wife for emotional support, however, there is evidence that he may be particularly susceptible to poor mental health (see Tower and Kasl 1996*b*).

These gender differences in the effect of the spouse on wellbeing might reflect the traditional gender-roles of men and women, whereby women have been socialised to derive their wellbeing in terms of close interpersonal relationships (*i.e.* their traditional role being centred within the family), whereas men derive their sense of self through more autonomous pathways (*i.e.* in the paid workforce) (Scanzoni and Litton Fox 1980; Tower, Kasl and Darefsky 2002). This distinction has been labelled by some researchers as men tending toward an 'agentic' as opposed to a 'communal' orientation, *i.e.* independent rather than interpersonally sensitive orientations (Eagly and Johannesen-Schmidt 2001), which in this instance might be seen as protective in terms of the relationship between marital dynamics and mental health.

In terms of whether marital quality is associated with *mortality*, Tower and colleagues (2002) found that whether the spouse was perceived as a confidant or source of emotional support related to mortality risk. For wives who had had children, naming their husband as a confidant and source of emotional support, but not being named by him, was protective in terms of mortality risk. Husbands in this study were most likely to live longer if they were perceived by their wife as being a source of emotional support, but did not view their wife in the same way (*i.e.* they were more self-sufficient). An Australian study has looked at the degree to which spouse-rated limitations and life-expectancy predicted three-year mortality among elderly couples (van Doorn 1998). They found that wives' perceptions (ratings) were not only significant predictors of husbands' mortality but wives' perceptions were in fact better predictors than the husbands' for their own mortality. While spouse-ratings are not overt measures of marital quality, this study suggested that the ability of a wife accurately to judge her husband's short-term mortality risk (which might indicate a measure of closeness) may in fact directly influence his health.

Another indirect indicator of marital quality found to be related to mental health outcomes is cognitive impairment in one spouse. Skarupski and colleagues (2006) found a cross-sectional association between cognitive impairment in the wife and depressive symptoms in the husband, but not the reverse. They recognised that the relationship may result from myriad factors, and suggested that as men tend to have fewer emotional confidants, their wife becoming cognitively impaired signals the end of their main source of emotional intimacy and support, hence the negative impact on their mental health. This notion also fits with 'socio-emotional selectivity theory' which argues that as people age they increasingly narrow their social relationships so that, assuming the marital dyad is close, one's spouse is likely to be a prominent source of emotional closeness (Carstensen 1992).

### *Summary*

Taken together, these studies demonstrate that the ways are complex in which marital relations affect, and are affected by, illness, wellbeing and even longevity. Eight of the nine studies focusing on marital relations and coping with illness – the exception being Hagedoorn *et al.* (2001) – focused on one particular chronic condition. This limits the extent to which we can distinguish whether the findings are particular to the specific illness, the specific sample or apply to the ways in which couples deal with illness more broadly. On the other hand, to the extent that the samples were diverse and the studies tapped into a range of illnesses, the consistency of the results implies a generalisable pattern. It has emerged that husbands and wives might be differentially affected by their spouse's wellbeing, which warrants further investigation. Nonetheless, for both husbands and wives, spousal relationships have been found to have the potential either to protect or enhance the risk of poor mental health outcomes. The presence of ill-health in one spouse, specifically cognitive decline or functional disability, may be detrimental to the health of both spouses, but this appears to be moderated by marital closeness. The gender differences that are apparent in some studies may reflect inherent divergence in terms of where men and women tend to seek their emotional support and reassurance, and the ramifications of this for the degree to which one spouse is influenced by the 'mood' of the other. Unlike the majority of the articles in this review, those that focused on the interplay between marital quality and wellbeing included seven longitudinal studies that collected repeat measures of spousal health and wellbeing. These studies emphasise the need for greater awareness of the role of the spouse in moderating ill-health, not only among professionals working with older people but also

among elderly couples themselves. The knowledge that spouses can have a significant impact on each other's wellbeing needs to be recognised as a legitimate element of an individual's social context, and hence represents an important contributor to health.

### Conclusions

Although a wealth of research has focused on the care-giving dimensions of elderly couple relationships, no previous systematic review has focused on couple dynamics as they relate to *both* spouses, outside a care-giving relationship. According to the 45 studies examined, there is strong evidence that the dynamics of late-life marital relationships are associated with the health and wellbeing of both husbands and wives, although not in all cases with equal effects. Importantly, there is strong evidence for spousal concordance in terms of depression. Most of the reviewed research concentrated on the interplay between marital relations and physical ill-health, and relatively little has investigated the dynamics of the relationship in the absence of ill-health. Research is needed that focuses on several gaps in the literature: the strengths of elderly marriages (*e.g.* the factors associated with strong, 'successful' partnerships); the burdens of late-life marriages (such as the increasing demands of grandparenting and associated family pressures); and the impact of relocation or housing transitions on the couple. Equally, nearly all of the studies have been exclusively at the marital dyad level (and the dynamics within the dyad) without adequate attention to the broader life conditions that affect a couple, such as their perceptions of housing, neighbourhoods, social support and access to services.

A number of methodological features of the reviewed research deserve special comment. Whilst nine longitudinal studies were identified (Tower and Kasl 1996*a*; Tower, Kasl and Moritz 1997; Ducharme 1997; van Doorn 1998; Tower Kasl and Darefsky 2002; Druley *et al.* 2003; Miller, Townsend and Ishler 2004; Hellstrom, Nolan and Lundh 2005; Skarupski *et al.* 2006), most studies were cross-sectional. This limits the overall contribution to our understanding of causation, particularly in relation to the spouses' concordance in emotional states and the impact of changes in spousal wellbeing. The recent use of dynamic dual change score models to reveal the dynamics for both the partners *and* the couple (McArdle and Hamagami 2001), and within or across domains of health will eventually clarify causal links (*e.g.* Hoppmann, Gerstorf and Luszcz 2008).

Another factor that may compromise the published findings is the inconsistency in collecting data separately from husbands and wives. In fact, the studies used various methods, from separate interviews to shared accounts, which might influence the gathered information (Meyler,

Stimpson and Peek 2007). Some studies pointed out that although separate interviews were planned, in the event this was not always possible, with spouses sometimes 'interfering' with the interview process or insisting on being interviewed together (*e.g.* Townsend, Miller and Guo 2001; Gladstone 1995). Other things being equal, we advise that two fieldworkers are deployed to interview individually each spouse concurrently, either in their own homes or in a research setting.

In terms of the length and types of relationships studied, most focused on 'traditional marriages' of around 40 years duration. Some did not detail the length of marriage (Matras and Caiden 1994; van Doorn 1998; Kivela *et al.* 1998; Lundh, Sandberg and Nolan 2000; Hagedoorn *et al.* 2001; Peek and Markides 2003; Dufouil and Alperovitch 2000; Skarupski *et al.* 2006; Ahn and Kim 2007). One study mentioned that they did not include duration of marriage in the data analysis (Stimpson and Peek 2005), and another explicitly stated that the variable was not available (Bookwala and Schulz 1996). Only two papers mentioned length of time *living together*, as opposed to length of *marriage*, in either selecting (Layman, Dijkers and Ashman 2005) or describing (Hellstrom, Nolan and Lundh 2005) the sample. Consensus over what constitutes a marriage relationship, and whether the key factors relating to older couples highlighted in this review relate equally to people in non-traditional but long-lasting relationships (*i.e. de-facto* or consensual unions) or in relationships of less than 40 years duration are important considerations for future research.

Similarly, the ways in which the quality of the marriage was measured differed in the studies, and can be seen as indicative of how the measures were conceived. The studies that focused on the interplay between marital quality and wellbeing or on marital relations and satisfaction *per se* used many different measures of 'satisfaction' or 'quality' of the marriage. We argue that more research is needed on how precisely to delineate the myriad perceptions that make up a person's assessment of their marriage. Innovative research to understand contemporary meanings of 'marital satisfaction' will ensure a more robust theoretical examination of this important domain of older people's lives (Askham 1995). As previously mentioned, the great majority of the studies were conducted in single geographical areas, mainly in North America, with predominantly white populations in traditional couple relationships. More work on late-life marriage among older minority groups is clearly needed, particularly as some of these groups are at greater risk of decreased wellbeing through relatively high rates of disease and disability (Peek *et al.* 2006). The extent to which interactions between spouses in a marriage might contribute to overall wellbeing in these groups should be central to the future research agenda.

In summary, given the importance of marital dynamics for wellbeing among older people, it is somewhat surprising that only 45 studies were identified. Of these, it could be argued that the research parameters were fairly narrow in that they could readily be grouped under three themes. Furthermore, much of the research, apart from the concordance literature, was not integrated with relevant theory, nor did it contribute new theoretical perspectives. The question must therefore be asked, why has there been relatively limited interest in long-term marriage? Perhaps a tendency to concentrate on the biomedical processes of ageing has overshadowed the seemingly 'uninteresting or unproblematic' behavioural interactions that comprise late-life marital relationships (Askham 1995: 87). On the other hand, perhaps investigation of the marital relationship, particularly in late life, carries a taboo associated with delving into a private sphere of functioning. Whatever the reason, we hope that this review has made clear that marital relationships, and spouse-specific changes or changes shared by a couple, are of great importance for older people's health. We encourage studies of elderly couples that investigate the rich socio-cultural diversity of this cohort and that take into account the many research gaps that we have identified.

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